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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,209	02/20/2004	Petri Gronberg	863.0008.U2(US)	6697

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HARRINGTON & SMITH, PC
4 RESEARCH DRIVE
SHELTON, CT 06484-6212

EXAMINER	
MERED, HABTE	

ART UNIT	PAPER NUMBER
2616	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/783,209	GRONBERG, PETRI	
	Examiner	Art Unit	
	Habte Mered	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7* is/are allowed.

6)☒ Claim(s) *1,2,8,9 and 12* is/are rejected.

7)☒ Claim(s) *3,4,10 and 11* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This Office Action is in response to communication filed on 02/20/2004 as part of continuation of the parent application, 09/461,490.

2. Claims 1-12 are pending. Claims 1, 7, and 8 are the base independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. **Claims 1-2, 8-9, and 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Sindhushayana et al (US 6, 760, 313 B1) in view of Schroeder et al (US 6, 700, 875 B1), hereinafter referred to as Sindhushayana and Schroeder respectively. .

Sindhushayana discloses adaptive rate selection.

2. Regarding **claim 1**, Sindhushayana discloses a method **(Figure 3)** to operate a channel coder **(Figure 6, 602)**, comprising periodically performing a plurality of statistical tests to derive a confidence measure of the reliability of a measured packet error rate **(Figure 3, step 310 and Column 7:35-45)**; and based on the confidence measure controlling the channel coder to either maintain a current channel coding technique or to switch to another channel coding technique. **(Figure 3, steps 312-316)**

Sindhushayana fails to disclose maintaining a first count (N_Number) of transmitted packets and a second count (K_Number) of packets that are erroneously

decoded at a receiver; using current values of the first and second counts to determine packet error rate.

Schroeder teaches method of selecting a channel.

Schroeder discloses maintaining a first count (N_Number) of transmitted packets and a second count (K_Number) of packets that are erroneously decoded at a receiver; using current values of the first and second counts to determine packet error rate. **(Columns 3:65-67 and Column 4:1-5,19-31)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sindhushayana's method to incorporate steps of maintaining a first count (N_Number) of transmitted packets and a second count (K_Number) of packets that are erroneously decoded at a receiver; using current values of the first and second counts to determine packet error rate. The motivation being to select a functional communication channel based on a desired channel quality as stated by Schroeder in Column 1:65-67.

3. Regarding **claim 8**, Sindhushayana discloses a wireless communications system **(See Figures 2 and 6)** that outputs packets from a channel coder of a transmitter **(Figure 6, MS)** for input to a channel decoder of a receiver **(Figure 6, BS)**, comprising a first controller **(Figure 6, 616)** that operates to perform statistical tests to determine a confidence measure of a reliability of packet reception and, based on the determined confidence measure, that operates to signal a second controller **(Figure 6, 604)** to either continue using a current channel coding algorithm or to use a different channel coding algorithm (**See Figure 3, steps 310-316)**

Sindhushayana fails to teach using current values of a number of transmitted packets (N_Number) and a number of erroneously decoded packets (K_Number) to determine reliability of packet transmission.

Schroeder discloses using current values of a number of transmitted packets (N_Number) and a number of erroneously decoded packets (K_Number) to determine reliability of packet transmission. **(Columns 3:65-67 and Column 4:1-5,19-31)**

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Sindhushayana's method to incorporate steps of maintaining a first count (N_Number) of transmitted packets and a second count (K_Number) of packets that are erroneously decoded at a receiver; using current values of the first and second counts to determine reliability of packet transmission. The motivation being to select a functional communication channel based on a desired channel quality as stated by Schroeder in Column 1:65-67.

3. Regarding **claims 2 and 9**, neither Sindhushayana nor Schroeder disclose resetting the first and second count. However, it would have been obvious to a person of ordinary skill in the art by the time the invention was made to reset the first and second count. A skilled artisan would have been motivated to do so because the counts used for calculating the old channel-coding rate is obsolete.

4. Regarding **claim 12**, Sindhushayana discloses a wireless communications system, where one of the transmitter and receiver comprises a mobile station. **(See Figure 6, element 602 and Figure 2, element 202)**

Allowable Subject Matter

5. **Claim 7** is allowed.

6. **Claims 3, 4, 10, and 11** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

7. Applicant's arguments with respect to claims 1 and 8 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Habte Mered whose telephone number is 571 272 6046. The examiner can normally be reached on Monday to Friday 9:30AM to 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H. To can be reached on 571 272 7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HM
09-29-07

DORIS H. TO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600